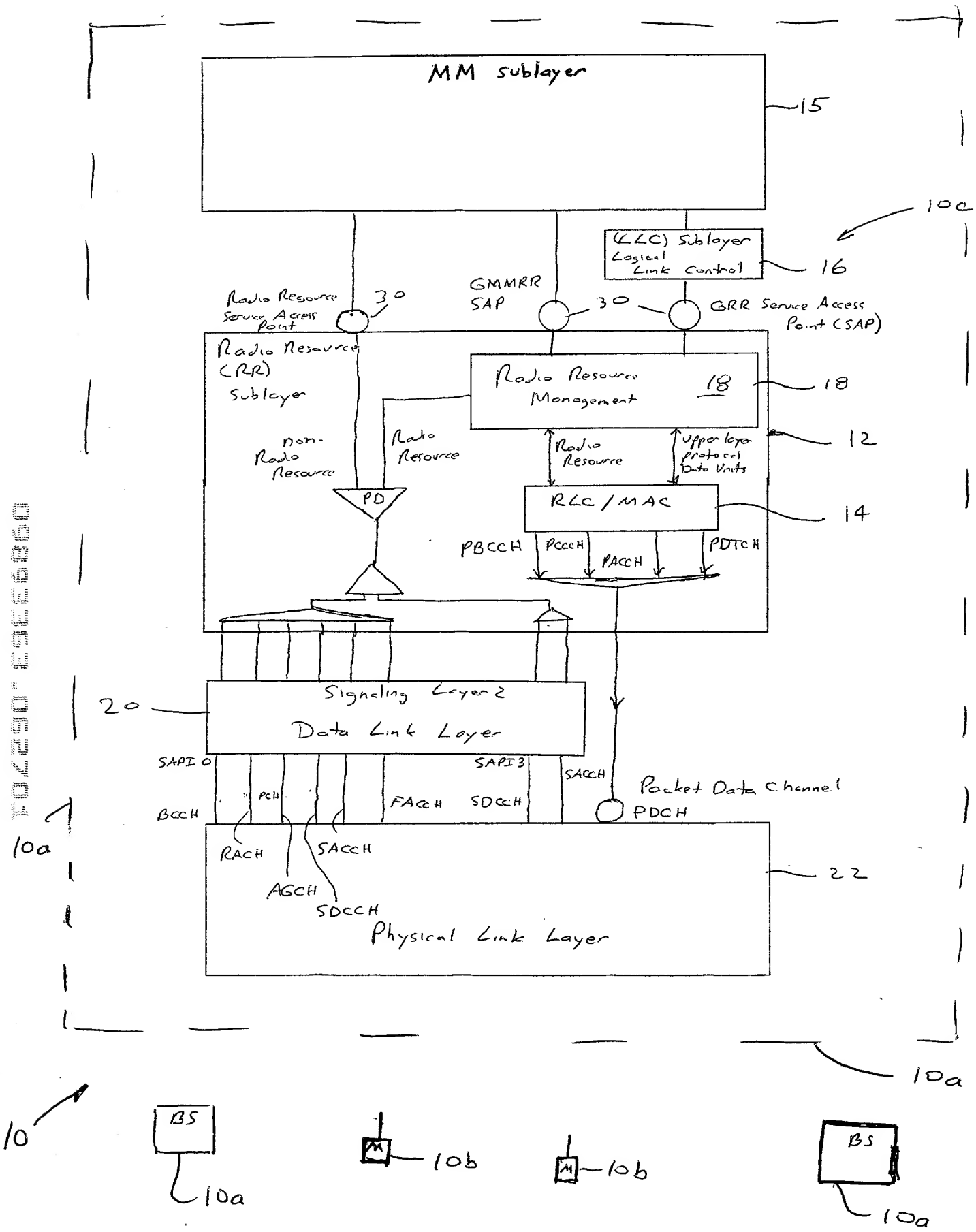

MM sublayer
15
10c
(LLC) Sublayer
Logical
Link Control
16
Radio Resource
Service Access
Point
30
GMMRR
SAP
30
GRR Service Access
Point (SAP)
Radio Resource
(RR)
Sublayer
Radio Resource
Management
18
18
non-
Radio
Resource
Radio
Resource
Radio
Resource
Upper layer
protocol
Data Units
12
PD
RLC / MAC
14
PBCCH
PCCCH
PACCH
PDTCH
Signaling Layer 2
Data Link Layer
20
SAPI 0
SAPI 3
SACCH
Packet Data Channel
PDCH
BCCH
PCH
FACCH
SDCCH
RACH
SACCH
AGCH
SDCCH
Physical Link Layer
22
10a
10
BS
10a
10b
10b
BS
10a

FIG. 1

Examples for Delimitation of LLC PDU in EGPRS RLC data block (Down-link)

First 2 RLC blocks of a TBF

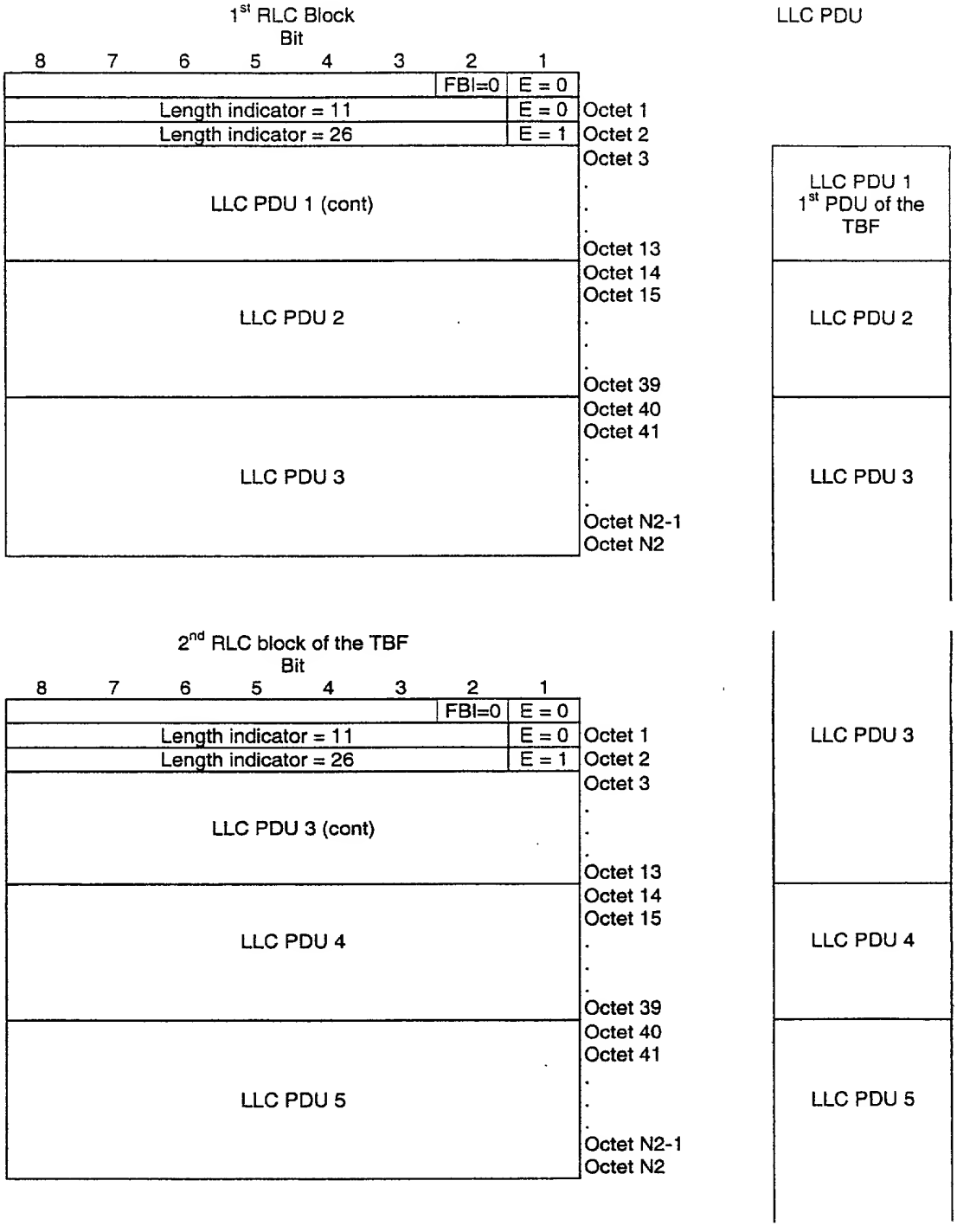
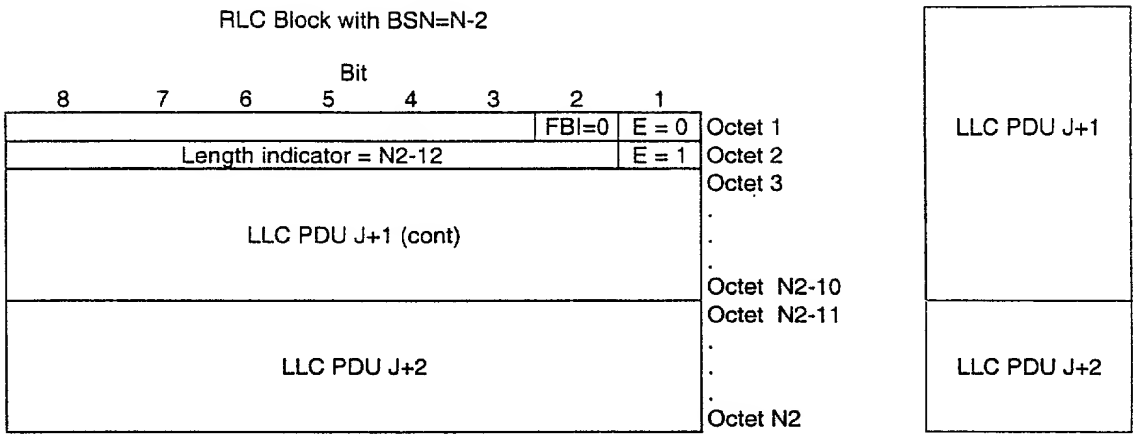


FIG 2A

FIG. 2B

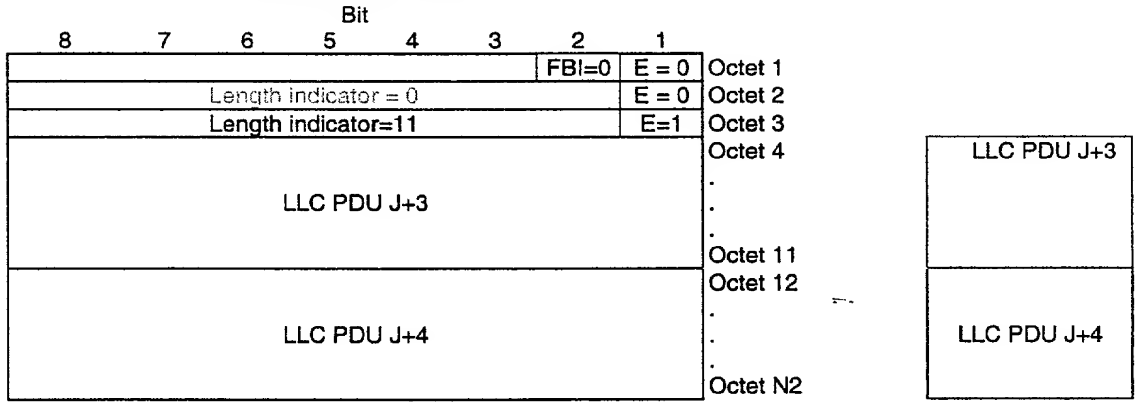
Last 3 RLC Blocks of a TBF that has N Blocks

RLC Block with BSN=N-2



F16 2C

RLC Block with BSN=N-1



F16 3A

EP 1 259 090 A2

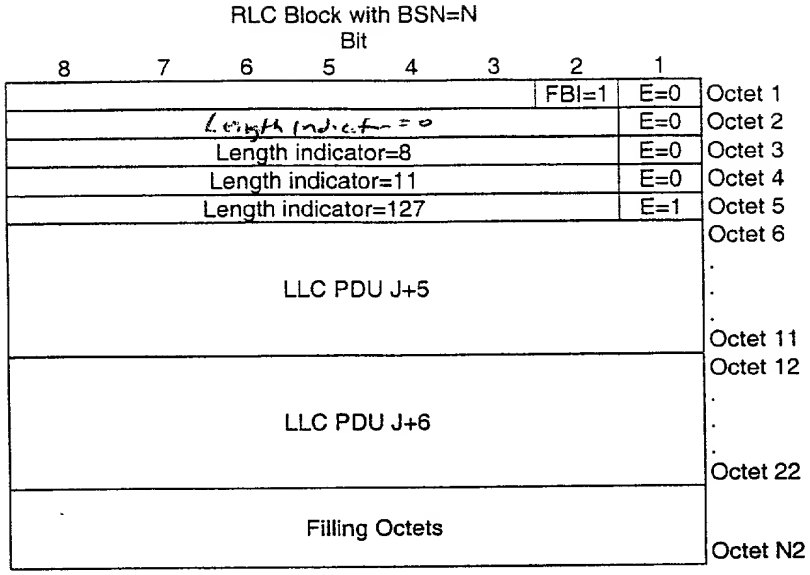


FIG. 3D

At the end of a TBF

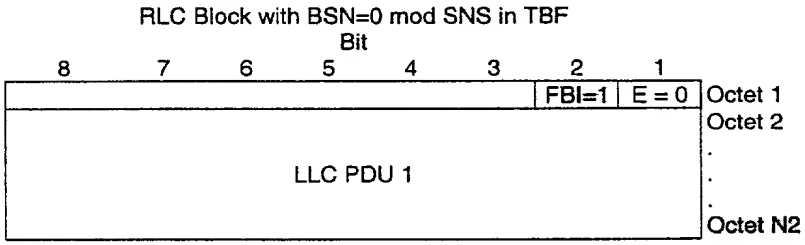


FIG. 4

Examples for Delimitation of LLC PDU in EGPRS RLC data block (Down-link)

First 2 RLC blocks of a TBF

1st RLC Block								LLC PDU	
Bit									
8	7	6	5	4	3	2	1		
						FBI=0	E = 0		
Length indicator = 11							E = 0	Octet 1	
Length indicator = 26							E = 1	Octet 2	
								Octet 3	
LLC PDU 1 (cont)								. . . LLC PDU 1 1st	
PDU of the TBF									
								Octet 13	
								Octet 14	
								Octet 15	
LLC PDU 2								. . . LLC PDU 2	
								Octet 39	
								Octet 40	
								Octet 41	
LLC PDU 3								. . . LLC PDU 3	
								Octet N2-1	
								Octet N2	

FIG. 5A

2nd RLC block of the TBF									
Bit									
8	7	6	5	4	3	2	1		
						FBI=0	E = 0		
Length indicator = 11							E = 0	Octet 1	LLC
PDU 3									
Length indicator = 26							E = 1	Octet 2	
								Octet 3	
LLC PDU 3 (cont)								. . .	
								Octet 13	
								Octet 14	
								Octet 15	
LLC PDU 4								. . . LLC PDU 4	
								Octet 39	
								Octet 40	
								Octet 41	
LLC PDU 5								. . . LLC PDU 5	
								Octet N2-1	
								Octet N2	

FIG. 5B

Last 3 RLC Blocks of a TBF that has N Blocks

RLC Block with BSN=N-2									
Bit									
8	7	6	5	4	3	2	1		
						FBI=0	E = 0	Octet 1	LLC PDU J+
1									
Length indicator = N2-13							E = 1	Octet 2	
								Octet 3	
LLC PDU J+1 (cont)								. . .	
								Octet N2-11	
								Octet N2-10	
LLC PDU J+2								. . .	LLC PDU J+
2									
								Octet N2	

FIG. 6A

FIG. 6B

RLC Block with BSN=N-1									
Bit									
8	7	6	5	4	3	2	1		
						FBI=0	E = 0	Octet 1	
Length indicator = 0							E = 0	Octet 2	
Length indicator= 8							E=1	Octet 3	
								Octet 4	LLC
PDU J+3									
LLC PDU J+3								. . .	
								Octet 11	
								Octet 12	
LLC PDU J+4								. . .	LLC PDU J+
4									
								Octet N2	

FIG. 6C

RLC Block with BSN=N									
Bit									
8	7	6	5	4	3	2	1		
						FBI=1	E=0	Octet 1	
Length indicator = 0							E=0	Octet 2	
Length indicator=6							E=0	Octet 3	
Length indicator=11							E=0	Octet 4	
Length indicator=127							E=1	Octet 5	
								Octet 6	LLC
PDU J+5									
LLC PDU J+5								. . .	
								Octet 11	
								Octet 12	
LLC PDU J+6								. . .	LLC PDU J+
6									
								Octet 22	
		Filling Octets							
								Octet N2	

Example 3: A TBF consists of one LLC PDU

Bit									
8	7	6	5	4	3	2	1		
						FBI=1	E = 0	Octet 1	
								Octet 2	LLC PDU
1									
LLC PDU 1								. . .	
								Octet N2	Last Octet

FIG. 7